

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference D 2003.795 WO	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/US2004/018992	International filing date (day/month/year) 15/06/2004	(Earliest) Priority Date (day/month/year) 24/06/2003
Applicant AKZO NOBEL N.V.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 4 sheets.

It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

2. Certain claims were found unsearchable (See Box II).3. Unity of invention is lacking (see Box III).

4. With regard to the title,

the text is approved as submitted by the applicant.

the text has been established by this Authority to read as follows:

5. With regard to the abstract,

the text is approved as submitted by the applicant.

the text has been established, according to Rule 36.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regards to the drawings,

a. the figure of the drawings to be published with the abstract is Figure No. 2

as suggested by the applicant.

as selected by this Authority, because the applicant failed to suggest a figure.

as selected by this Authority, because this figure better characterizes the invention.

b. none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US2004/018992A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C07K1/18

Corrected version

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 C07K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO+internal, BIOSIS, EMBASE, WPI-Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>FRANKEN K L M C ET AL: "Purification of His-Tagged Proteins by Immobilized Chelate Affinity Chromatography: The Benefits from the Use of Organic Solvent" PROTEIN EXPRESSION AND PURIFICATION, ACADEMIC PRESS, SAN DIEGO, CA, US, vol. 18, no. 1, February 2000 (2000-02), pages 95-99, XP004435586 ISSN: 1046-5928 cited in the application page 97, right-hand column, paragraph 3 - page 98, left-hand column, paragraph 3 ----- -/-</p>	1-18

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the International filing date
- "L" document which may throw doubts on priority, claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the International filing date but later than the priority date claimed

"T" later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the International search

Date of mailing of the International search report

16 December 2004

28.12.2004

Name and mailing address of the ISA
European Patent Office, P.B. 5018 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl
Fax: (+31-70) 340-3016

Authorized officer

Ury, A

INTERNATIONAL SEARCH REPORT

International Application No.
PCT/US2004/018992

C(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	PETSCH DAGMAR ET AL: "Endotoxin removal from protein solutions" JOURNAL OF BIOTECHNOLOGY, vol. 76, no. 2-3, 21 January 2000 (2000-01-21), pages 97-119, XP002296265 ISSN: 0168-1656 cited in the application page 103, left-hand column, paragraph 2 page 115, left-hand column, paragraph 2 abstract	1-18
A	BISCHOFF R ET AL: "PURIFICATION AND BIOCHEMICAL CHARACTERIZATION OF RECOMBINANT X1-ANTITRYPSIN VARIANTS EXPRESSED IN ESCHERICHIA COLI" BIOCHEMISTRY, AMERICAN CHEMICAL SOCIETY, EASTON, PA, US, vol. 30, no. 14, 9 April 1991 (1991-04-09), pages 3464-3472, XP000179424 ISSN: 0006-2960 page 3465, left-hand column, last paragraph - right-hand column, paragraph 3 page 3469, paragraph 2	1-18
A	US 4 248 862 A (ELLWOOD DEREK C ET AL) 3 February 1981 (1981-02-03) the whole document	1-18
A	EP 0 407 037 A (MERCK & CO INC) 9 January 1991 (1991-01-09) the whole document	1-18
A	US 4 832 751 A (DOMELSMITH LINDA N ET AL) 23 May 1989 (1989-05-23) the whole document	1-18
A	US 5 045 456 A (RIENSTRA MARK S ET AL) 3 September 1991 (1991-09-03) the whole document	1-18
A	WO 99/63076 A (IMMUNE RESPONSE CORP INC) 9 December 1999 (1999-12-09) the whole document	1-18

International Application No
PCT/US2004/018992

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
US 4248862	A	03-02-1981	AU AU CA DE EP GB	522139 B2 4433779 A 1126155 A1 2961293 D1 0004137 A1 2014452 A ,B		20-05-1982 23-08-1979 22-06-1982 14-01-1982 19-09-1979 30-08-1979
EP 0407037	A	09-01-1991	CA CY DE EP HK JP JP US US US	2018709 A1 1982 A 69012682 D1 0407037 A1 8097 A 2878788 B2 3095201 A 5019502 A 5045456 A 5039610 A		12-12-1990 05-09-1997 27-10-1994 09-01-1991 24-01-1997 05-04-1999 19-04-1991 28-05-1991 03-09-1991 13-08-1991
US 4832751	A	23-05-1989	NONE			
US 5045456	A	03-09-1991	CA CY DE EP HK JP JP	2018709 A1 1982 A 69012682 D1 0407037 A1 8097 A 2878788 B2 3095201 A		12-12-1990 05-09-1997 27-10-1994 09-01-1991 24-01-1997 05-04-1999 19-04-1991
WO 9963076	A	09-12-1999	AU WO	4314099 A 9963076 A1		20-12-1999 09-12-1999